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EXAMINER

WIN, AUNG T

ART UNIT

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2617

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,736	Applicant(s) LOHR ET AL.	
	Examiner AUNG WIN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) 1-41,44,48,50,52,55,59,61 and 64-67 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42,43,45-47,49,51,53,54,56-58,60,62,63 and 68-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 70-74 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 70-74 recites limitation “data of **all** logical channels are multiplexed to said single transport channel”. Examiner cannot find any support in the disclosure to said limitation as cited in the claims. Examiner requests the applicant specify the drawing, page, column or line number, which support the claim limitation. Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

Applicant's arguments regarding rejected claims filed 07/14/2009 have been fully considered but they are not persuasive.

Applicant argues that modified method and terminal does not teach according to claims because modified method and terminal does not teach according to independent claims i.e.,

(1) Receiving radio bearer mapping information that **indicates** a priority to be assigned to a logical channel to which the respective radio bearer to be mapped

(2) Receiving the radio bearer mapping information that **indicates** a scheduling mode out of plural scheduling modes of the logical channel to which the respective radio bearer is to be mapped

(3) Mapping logical channels to single transport channel because

Beckmann et al. fails to teach or suggest that scheduling mode information is not considered in the mapping of the logical channels to transport channels and Beckmann et al. and Cheng et al. fails to teach mapping the logical channels into single transport channel [applicant's remarks pages 11-14].

Examiners disagree. Beckmann et al. discloses receiving radio bearer mapping information that indicates priority of the logical channel to which the respective radio bearer to be mapped [RB mapping info comprises indications such as for the UL prioritization information for the logical channel: paragraph 0035-0042] and

Mapping logical channels to single transport channel [more than one logical channels can be mapped to single transport channel: 0028].

Cheng et al. discloses receiving transmitting parameter that indicates priority [transmission parameter from received signaling message may be priority indication parameter: 0028] and scheduling modes of the logical channel that is to be mapped

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[Based on transmission parameter from received signaling message, transmission mode for uplink transmission may be selected: 0029], and mapping logical channels to transport channel according to scheduling modes [one or more logical channels to at least one transport channel for uplink transmission in accordance with the selected transmission mode: 0029].

Therefore, it would have been obvious to one of ordinary skilled in the art that modifying Beckmann et. al. radio bearer mapping and transmission method and terminal to determine transmission mode of logical channel from received radio bearer mapping information that indicates transmission mode (i.e., received transmission parameter indicates the transmission mode of logical channel according to Cheng et al. teaching) and to map logical channels to signal transport channels based on priority and transmission mode (i.e., mapping logical channels assigned with priority having same transmission mode to single transport channel) would teach according to independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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1. Claims 42, 53, 63, 43, 54, 45, 56, 46, 57, 47, 58, 49, 60, 68-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckmann et al. (US20040028078A1) in view of Cheng et al. (US20040228313A1).

1.1 Regarding claim 42, Beckmann discloses a data transmission method for use in a mobile communication system, the method comprising:

establishing radio bearers between a mobile terminal and a radio access network of the mobile communication system [setting up or reconfiguring Radio Bearers: 0018 & 0028],

receiving, at the mobile terminal, radio bearer mapping information from the radio access network, wherein the radio bearer mapping information indicates for each of the radio bearers: (1) a priority to be assigned to a logical channel to which the respective radio bearer is to be mapped [RB mapping info comprises indications such as for the UL prioritization information for the logical channel: paragraph 0035-0042] [receiving configuration message or reconfiguration message comprising RB mapping information: 0036 & 0037] [RB mapping information indicates a priority for mapping: 0038],

mapping the radio bearers to logical channels at the mobile terminal taking into account the received radio bearer mapping information, wherein mapping the radio bearers to logical channels comprises assigning to a logical channel on which a respective radio bearer is mapped the priority indicated in the radio bearer mapping

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information and multiplexing data of the logical channels to a signal transport channel and transmitting by the mobile terminal the multiplexed data of the logical channels on the transport channel [assigning radio bearers RBs into logical channels based on RB mapping information which includes priority information assigned to each logical channel for each RB, and further mapping logical channels to transport channels: 0035-0038 & 0058] [more than one logical channels can be mapped to single transport channel i.e., Mapping logical channels to single transport channel: 0028].

As stated above Beckmann discloses assigning, mapping and multiplexing each of assigned logical channels for each of RBs to transport channels based on indicated priority information included in RB mapping information but does not teach that assigning, mapping and multiplexing each of assigned logical channels for each of RBs is also based on indicated scheduling mode.

Cheng discloses a data transmission method comprising: assigning, mapping and multiplexing each of assigned logical channels for each of RBs to transport channels at the mobile terminal based on based on priority and scheduling modes [scheduling mode selector 442 based on indicated transmission parameter information: Figure 4, 0012, 0028 & 0029]. Thus, Cheng et al. discloses receiving transmitting parameter that indicates priority [transmission parameter from received signaling message may be priority indication parameter: 0028] and scheduling modes of the logical channel that is to be mapped [Based on transmission parameter from received signaling message, transmission mode for uplink transmission may be selected: 0029], and mapping logical channels to transport channel according to priority and scheduling

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modes [one or more logical channels to at least one transport channel for uplink transmission in accordance with the selected transmission mode: 0029].

Therefore, it would have been obvious to one of ordinary skilled in the art at the time when invention was made to modify Beckmann's the RB mapping information to indicate the scheduling mode of the mobile terminal in optional information element indication slot [optional information element: 0043] to control the scheduling mode of mobile station as taught by Cheung in assigning, mapping and multiplexing each of assigned logical channels for each of RBs to transport channels at the mobile terminal based on based on priority and scheduling modes as claimed. One of ordinary skilled in the art at the time of invention of made would have been motivated to do this to optimize the network resource management by configuring mobile system to manage the mobile terminal's scheduling modes and its priorities.

1.2 As regards to claim 53, it would have been obvious to one of ordinary skilled in the art that the mobile terminal as configured to operate according to modified system and method would comprise units to process method steps accordingly as claimed because the mobile terminal as configured to operate according to modified system and method teaches establishing, receiving, mapping, multiplexing and transmitting steps substantially close to corresponding steps of claim 53.

1.3 Claim 63 is rejected for the same reason as stated above in Claim 42 & 53 rejections because claim 63 discloses method substantially close to corresponding

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method executed by processor of mobile terminal of claim 63. Mobile terminal as modified must comprise computer readable medium for storing instructions as claimed because mobile terminal is programmable electronic device.

1.4 As regards to claim 68, it would have been obvious to one of ordinary skilled in the art that modified system and method would comprise units to process method steps accordingly as claimed because modified system and method teaches establishing, receiving, mapping, multiplexing, selecting and transmitting steps substantially close to corresponding steps of claim 53 [selecting TFC: 0018 & claim 8 of Beckmann] [selecting TFC: 0038 of Cheng].

1.5 As regards to claim 69, it would have been obvious to one of ordinary skilled in the art that the mobile terminal as configured to operate according to modified system and method would comprise units to process method steps accordingly as claimed because the mobile terminal as configured to operate according to modified system and method teaches establishing, receiving, mapping, multiplexing, selecting and transmitting steps substantially close to corresponding steps of claim 53 [selecting TFC: 0018 & claim 8 of Beckmann] [selecting TFC: 0038 of Cheng].

1.6 As regards to Claims 43 & 54, it would have been obvious to one of ordinary skilled in the art that transmission method, system and mobile terminal as modified would teach according to claims 43 & 54 because both Beckmann and Cheng discloses

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selecting unit the selects a transport format combination to be used for transmitting data based on at least the priority assigned to the logical channel [0038 & Figure 3 of Cheng] [selecting TFC: 0018 & claim 8 of Beckmann].

1.7 As regards to Claims 45 & 56, it would have been obvious to one of ordinary skilled in the art that transmission method, system and mobile terminal as modified would teach according to claims 45 & 56 because both Beckmann and Cheng discloses the data transmission method and mobile terminal, wherein transmitter transmits the data using the selected transport format combination [0038 & Figure 3 of Cheng] [selecting TFC: 0018 & claim 8 of Beckmann].

1.8 As regards to Claims 46 & 57, it would have been obvious to one of ordinary skilled in the art that the method, system and mobile terminal as modified teach multiplexing logical channels to transport channels based on priority and scheduling modes as claimed in claims 46 & 57 [see claim 42 rejection as modified in view of Cheng].

1.9 As regards to Claims 47 & 58, transmission method, system and mobile terminal as modified teaches that radio bearer mapping information is part of RRC signaling information [RB mapping info is negotiated by RRC layer: 0028 of Beckmann].

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1.10 As regards to Claims 49 & 60, Beckmann does not explicitly disclose that the data is transmitted on enhanced dedicated uplink channel. But Cheng discloses that the data is transmitted on enhanced dedicated uplink channel [0021, 0031 & 0047]. Therefore, it would have been obvious to one of ordinary skilled in the art at the time when invention was made to modify the system, method and mobile terminal to transmit data on enhanced dedicated uplink channel as claimed to enhance the system performance.

1.11 In light of 112 rejections, Claims 70-74 are rejected for the same reason as stated above in claims 42, 53, 63, 68 and 69. As stated above in claim 42 rejections, it would have been obvious to one of ordinary skilled in the art that Beckmann et al.'s mapping and transmitting method modified in view of Cheng et al. would map all logical channels of same scheduling modes would map to one single transport channel based on priority as claimed.

2. Claims 51 & 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckmann et al. (US20040028078A1) in view of Cheng et al. (US20040228313A1), further in view of Applicant's admitted prior art 3GPP TR 25.896 V6.0.0 (2004-03).

2.1 Regarding Claim 51 & 62, the method, system and mobile terminal as modified as taught by Cheng teaches that scheduling modes for mobile station is either

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autonomous and scheduling modes [0012 of Cheng] although Cheng does not explicitly disclose that disclosed autonomous and scheduling transmission modes are referring to a time and rate controlled scheduling mode or a rate controlled scheduling mode.

Admitted prior art teaches that co-existence of different scheduling modes is provided the flexibility in serving the different traffic types [section 7.1.2.4]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of made to modify Cheng data transmission method to implement claimed scheduling mode as taught by 3GPP publication. One of ordinary skill in the art at the time of invention of made to do this to provide flexibility in serving the different traffic data types according to 3GPP standard.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to AUNG WIN whose telephone number is (571)272-7549. The examiner can normally be reached on Monday-thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-760303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung T Win/
Examiner, Art Unit 2617

***/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2617***